

From *Ancistrocladus* to *Tristaniopsis* via *Tetramerista* - the convoluted history of a Wallich collection and its impact on the native flora of Singapore

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ABSTRACT. *Ancistrocladus sagittatus* Wall. ex Planch. (Ancistrocladaceae) is the name of a plant species solely based on a sterile collection made by Nathaniel Wallich in Singapore in 1822. Since 1875, this name has been treated as a variety or synonym of *Tetramerista glabra* Miq. (Tetrameristaceae). However, the original material is actually referable to *Tristaniopsis* (Myrtaceae), and *Ancistrocladus sagittatus* is here lectotypified and reported as a synonym of *Tristaniopsis merguensis* (Griff.) Peter G. Wilson & J.T. Waterh. for the first time. The new determination of the Wallich collection means that the record of *Tetramerista glabra* in the native flora of Singapore requires reassessment. It is concluded that *Tetramerista glabra*, the genus *Tetramerista* and the family Tetrameristaceae should all be excluded from inventories of the native flora of Singapore.

Keywords. *Ancistrocladus*, flora, Singapore, synonymy, *Tetramerista*, *Tristaniopsis*, typification

Introduction

Nathaniel Wallich (1786–1854) was a Danish surgeon who studied botany in Copenhagen. In 1807, he arrived at Serampore in India to work as a medical doctor. By 1814 he had officially joined the British East India Company, still working in the medical service, and in 1815 he was appointed Superintendent of the Botanic Garden in Calcutta. Wallich undertook various expeditions to collect specimens. This included a trip from Calcutta to Penang and Singapore in 1822. Of the many collections made by Wallich and his assistants on this trip, one from Singapore, of apparently only sterile material, was named *Ancistrocladus sagittatus* by Wallich. The name was included as number 1055 in Wallich's monumental listing of the East India Company Herbarium known as the *Numerical List* (Wallich, 1828–1849) or Wallich's Catalogue. As with the vast majority of plant names in the *Numerical List*, *Ancistrocladus sagittatus* was a *nomen nudum* in the absence of a description or reference to a published one. An exception to this rule was actually provided by the generic name *Ancistrocladus*. This was validly published in the *Numerical List* as a replacement name for *Wormia* Vahl, a later homonym of *Wormia* Rottb. (Dilleniaceae). The top set of the East India Company collections was maintained as a closed collection, often referred to as the Wallich Herbarium, firstly at the Linnean Society of London and later, from 1913, at

the Royal Botanic Gardens Kew (K-W). Other material was distributed by Wallich under the list numbers to many different individuals, including William Hooker, and institutions, though it should not be assumed that all specimens with the same number represent true duplicates.

Ancistrocladus sagittatus was first validated by the French botanist Jules Émile Planchon in a paper on *Ancistrocladus* (Planchon, 1849). Planchon based the species solely on Wallich's collection, but did not state which specimens he had seen. Planchon worked as assistant to William Hooker at Kew in the period 1844–1848 and, for several other *Ancistrocladus* species in his revision, he indicated that he had seen specimens in Hooker's personal herbarium. I therefore designate a specimen distributed under the East India Company number 1055, now in the general herbarium of the Royal Botanic Gardens Kew and formerly in Hooker's personal herbarium, as the lectotype of *Ancistrocladus sagittatus* Wall. ex Planch.

Alfred William Bennett seems to have been the first to realise that *Ancistrocladus sagittatus* did not belong in *Ancistrocladus*. In the account of the Ochnaceae for the *Flora of British India*, Bennett (1875) treated *Ancistrocladus sagittatus* as a variety of *Tetramerista glabra* Miq. (Tetrameristaceae, formerly placed in the Ochnaceae or Theaceae). A casual encounter with this piqued my interest because, if this reduction were taxonomically correct, then *Ancistrocladus sagittatus*, the older of the two names, should provide the correct epithet at the rank of species. The treatment of *Ancistrocladus sagittatus* as a synonym of *Tetramerista glabra* has been repeated in subsequent revisions of *Ancistrocladus* (Steenis, 1948; Gereau, 1997; Taylor et al., 2005) and *Tetramerista* (Lim, 2010).

The online catalogue of the Kew Herbarium made it easy to discover that the recent determinations of the Wallich specimen in the general herbarium were under the myrtaceous genus *Tristaniopsis* (formerly *Tristania*) rather than *Tetramerista*. The two genera bear superficially similar foliage. However, *Tetramerista* lacks a clear intramarginal nerve (Keng, 1989), which is evident in the Wallich specimens at Kew, leading me to agree with the placement in *Tristaniopsis*. Following the treatment of *Tristaniopsis* by Ashton (2005, 2011), I therefore consider *Ancistrocladus sagittatus* to be a new synonym of *Tristaniopsis merguensis* Griff.

Tristaniopsis merguensis (Griff.) Peter G. Wilson & J.T. Waterh., Austral. J. Bot. 30: 439 (1982). – *Tristania merguensis* Griff., Account Bot. Coll. Cantor 18 (1844–1845). TYPE: Burma, Mergui, *W. Griffith* 235 (isotypes K [barcode nos. K000793713, K000793713]).

Ancistrocladus sagittatus Wall. [Numer. List no. 1055 (1829), nom. nud.] ex Planch., Ann. Sci. Nat., Bot. sér. 3, 13: 319 (1849), **synon. nov.** – *Tetramerista glabra* Miq. var. *sagittata* (Wall. ex Planch.) A.W. Benn. in Hook.f., Fl. Brit. India 1: 526 (1875). TYPE: Singapore, 1822, *N. Wallich* s.n. [EIC 1055] (lectotype K [barcode no. K000793725], designated here; isolectotypes K-W [barcode nos. K001110861, K001110862]).

As well as dealing with the correct placement of the name *Ancistrocladus sagittatus*, this finding also brings into question the occurrence of *Tetramerista glabra* in Singapore. The species has been listed in the Singapore flora (Ridley, 1900; Keng, 1990) based solely on the Wallich record which we now know to be an error of identification. The work of Corner (1978) on the swamp forests of Johore and Singapore supports the absence of *Tetramerista glabra* from Singapore. He found the species in the true peat swamp relict at Pontian in Johore, but not in the freshwater swamps in the Sedili forests of Johore or Singapore. I therefore consider that there is no record of *Tetramerista glabra* from Singapore and the species, genus and family all have to be removed from listings of the native flora until evidence to the contrary is forthcoming.

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